

AMENDMENT TO THE CLAIMS

Claims 1-21 (canceled)

Claims 22-31 (withdrawn)

Claims 32-44 (canceled)

45. (new) A memory element, comprising:

a substrate;

a cup-shaped electrical contact electrically coupled to said substrate, said cup-shaped contact having an open end facing away from said substrate, said contact including one or more protrusions extending upward from the rim of said cup-shaped contact;

a dielectric material formed over the interior surface of said cup-shaped contact; and

a programmable resistance material electrically coupled to at least one of said protrusions.

46. (new) The memory element of claim 45, wherein said electrical contact comprises at least one material selected from the group consisting of titanium nitride, titanium aluminum nitride, titanium carbonitride, titanium silicon nitride, carbon, N- doped polysilicon, titanium tungsten, tungsten silicide, tungsten, molybdenum, N+ doped polysilicon.

47. (new) The memory element of claim 45, wherein said programmable resistance material includes a phase change material.

48. (new) The memory element of claim 45, wherein said programmable resistance material includes a chalcogen element.

49. (new) The memory element of claim 45, wherein substantially all electrical communication between said programmable resistance material and said electrical contact occurs through at least one of said protrusions.